

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. Please amend claim 20, as follows:

Claim 1 (Previously Presented): A composition comprising kaolin having a shape factor ranging from 32 to 49, wherein at least about 85% by weight of the kaolin has an esd of less than about 1 μm , the amount of the kaolin having an esd of less than about 0.25 μm ranges from 35% to about 60% by weight.

Claim 2 (Canceled).

Claim 3 (Previously Presented): The composition according to claim 1, wherein the kaolin has a Hercules viscosity of less than about 4000 rpm at 18 dynes at 63% solids when measured using the "A" bob.

Claim 4 (Canceled).

Claim 5 (Original): The composition according to claim 1, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 6 (Original): The composition according to claim 1, wherein at least about 95% by weight of the kaolin has an esd of less than about 2 μm .

Claim 7 (Original): The composition according to claim 1, wherein at least about 96% by weight of the kaolin has an esd of less than about 2 μm .

Claim 8 (Original): The composition according to claim 1, wherein at least about 98% by weight of the kaolin has an esd of less than about 2 μm .

Claim 9 (Original): The composition according to claim 1, wherein the amount of the kaolin having an esd of less than about 2 μm ranges from about 94% to about 99% by weight.

Claim 10 (Canceled).

Claim 11 (Original): The composition according to claim 1, wherein at least about 88% by weight of the kaolin has an esd of less than about 1 μm .

Claim 12 (Original): The composition according to claim 1, wherein at least about 92% by weight of the kaolin has an esd of less than about 1 μm .

Claim 13-15 (Canceled).

Claim 16 (Previously Presented): The composition according to claim 1, wherein the kaolin has a shape factor ranging from 35 to 49.

Claim 17 (Previously Presented): The composition according to claim 1, wherein the kaolin has a shape factor ranging from 40 to 49.

Claim 18 (Previously Presented): The composition according to claim 1, wherein the kaolin has a shape factor ranging from about 35 to about 40.

Claim 19 (Previously Presented): The composition according to claim 1, wherein the amount of the kaolin having an esd of less than about 0.25 μm ranges from 35% to about 50% by weight.

Claim 20 (Currently Amended): The composition according to claim 1, wherein the kaolin has a shape factor ranging from 45 to 49, at least about 96% by weight of the kaolin has an esd of less than about 2 μm [[pm]], at least about 85% by weight of the kaolin has an esd of less than about 1 μm [[pm]], and the amount of the kaolin having an esd of less than about 0.25 μm [[pm]] ranges from 35% to about 45% by weight.

Claims 21-37 (Canceled).

Claim 38 (Previously Presented): A method of refining kaolin, comprising:

(a) providing a degrittied kaolin slurry having a shape factor of at least about 10 and including at least about 80% by weight particles having an esd of less than about 2 μm ;

(b) wet media grinding the degrittied kaolin slurry consuming in the range of from about 10 to about 200 Kw-hr/ton of energy; and

(c) classifying the slurry to a fine fraction wherein from about 96% to about 98% by weight of the classified kaolin has an esd of about 2 μm and the classified kaolin has a shape factor of less than or equal to 49.

Claim 39 (Canceled).

Claim 40 (Original): The method according to claim 38, wherein the degrittied kaolin slurry provided in (a) has a shape factor of at least about 20.

Claim 41 (Original): The method according to claim 38, wherein the degrittied kaolin slurry provided in (a) has a shape factor of at least about 30.

Claim 42 (Original): The method according to claim 38, wherein the degrittied kaolin slurry provided in (a) has a shape factor of at least about 40.

Claim 43 (Previously Presented): The method according to claim 38 , wherein the amount of the kaolin in part (c) having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight.

Claim 44 (Original): The method according to claim 38, further comprising spray-drying the fine fraction.

Claim 45 (Original): The method according to claim 38, wherein the kaolin slurry is subjected to a beneficiation step selected from: selective flocculation, ozone treatment, flotation, magnetic separation, leaching, or any combination thereof.

Claim 46 (Original): The method according to claim 38, further comprising leaching the kaolin fine fraction and filtering and drying the leached kaolin fine fraction.

Claim 47 (Previously Presented): A coated paper comprising:
a fibrous substrate; and
a coating on the substrate comprising kaolin having a shape factor of at least 32, wherein at least about 85% by weight of the kaolin has an esd of less than about 1 μm , the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight.

Claim 48 (Original): The paper according to claim 47, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 49 (Previously Presented): The paper according to claim 47, wherein the kaolin has a Hercules viscosity of less than 4000 rpm at 18 dynes at 63% solids when measured using the "A" bob.

Claim 50 (Original): The paper according to claim 47, wherein the coating further comprises calcium carbonate.

Claim 51 (Previously Presented): A method of making a coated paper comprising: coating a fibrous substrate with a paper coating composition comprising kaolin having a shape factor of at least 32, at least 85% by weight of the kaolin has an esd of less than 1 μm , the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight.

Claim 52 (Original): The method of claim 51, wherein at least about 94% by weight of the kaolin has an esd of less than about 2 μm .

Claim 53 (Previously Presented): The method of claim 51, wherein the kaolin has a Hercules viscosity of less than 4000 rpm at 18 dynes at 63% solids when measured using the "A" bob.

Claims 54 and 55 (Canceled).

Claim 56 (Previously Presented): A coated paper comprising:
a fibrous substrate; and
a coating on the substrate comprising kaolin having a shape factor of at least 32, at least about 85% by weight of the kaolin having an esd of less than about 1 μm and the amount of the kaolin having an esd of less than about 0.25 μm ranges from about 25% to about 60% by weight,
wherein gloss of the coated paper is greater than about 45 TAPPI units.